

REMARKS

In the Office Action dated October 13, 2009, it was stated that:

the title of the invention is not descriptive -- a new title was required;

claims 12, 14-16, 20 and 21 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,000,049 to Terry;

claims 13, 18, 19, 22 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Terry; and

finally, claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Terry in view of U.S. Patent No. 2,342,477 to Magnenat.

For the reasons outlined in detail below, it is respectfully submitted that the pending claims are in condition for allowance over the art of record.

Title

It was stated in the Office Action that the title of the invention was not descriptive. A new title was suggested. Applicants have revised the title of the instant application to comport with the Examiner's suggestion.

Terry

Independent claim 12 and dependent claim 13 have been cancelled without prejudice. Remaining in the application are dependent claims 14-22 and independent claim 23.

It was stated in the Office Action that Terry discloses a method of molding a two-part hinge including a first molded part and a second molded part connected together during molding to allow relative pivotal movement between the parts with the steps of: molding the first part; molding the second part over the first part after molding of the first part to form an interface between the second part and the first part at which said relative pivotal movement is allowed. It was further stated that after molding of the second part, the second part is allowed to shrink in a controlled manner to provide a predetermined frictional force at the interface between the first part and the second part in order to resist the relative pivotal movement. Column 2, lines 31-68 of Terry were noted in this regard. It was then asserted that, although Terry does not explicitly disclose that the

first part shrinks during the molding of the second portion, i.e., after the molding of the second portion, one of ordinary skill in the art would recognize that the plastic of the first part necessarily shrinks after it is molded, i.e., during the molding of the second portion. Finally, it was asserted that the precise time of the shrinkage during the second molding cycle would not have unexpected results to one skilled in the art. This rejection is respectfully traversed.

Applicants respectfully submit that as a matter of course, a skilled person would wait until the first part, i.e., the female leaf 1 or 1a of Terry, has completely cooled before molding the second part, i.e., the male leaf 7 or 7a. Terry, in fact, describes just this procedure. More particularly, he states that the female leaf 1 with its integral knuckles and stub pintles is produced and thereafter the completed female leaf 1 is placed in proper cooperative relation with a die cavity appropriate to cast the companion male leaf 7 (see column 2, lines 31-39). While Terry recognizes that the second molded leaf 7 shrinks as it cools, no shrinkage takes place in the first leaf 1 during the time of shrinkage of the second leaf, because the first leaf has already cooled (i.e., it is a completed leaf). The shrinkage that took place in the first part, the female leaf 1 of Terry, has run its course before it is placed in a die cavity appropriate to cast the second part or leaf. Therefore, Terry does not anticipate or render obvious the method of claim 23.

In addition, the method of claim 23 is concerned with controlling the frictional force at the interface between the first part and the second part. In particular, the frictional force is controlled by injecting the material of the second part before the first part has completed its shrinkage after molding so that the first part undergoes shrinkage during the molding of the second part. This is done in order to provide a predetermined frictional force at the interface between the first part and the second part. Such control of the frictional force is not suggested by Terry, and would be an unexpected result to one skilled in the art.

In fact, Terry teaches away from the claimed invention.

More specifically, Terry states that the primary object of his invention is to make an injected molded plastic hinge in conventional dies without setting up inherent stresses in the end product hinge (see column 1, lines 36-40). Thus, Terry provides a

two-shot injection molded hinge which is free of inherent stresses (see column 1, lines 41-42).

In contrast, the method of claim 23 recites the step of providing a predetermined frictional force at the interface between the first part and the second part of the molded two-part hinge in order to resist a relative pivotal movement.

Thus, Terry does not disclose the step of injecting the material of the second part before the first part has completed its shrinkage after molding so that the first part undergoes shrinkage during molding of the second part. Rather, Terry teaches that the first part is a completed part (i.e., a completed female leaf) before that completed part is placed into the die cavity to mold the second part (i.e., the male leaf). In addition, Terry has as its primary object to make an injection molded plastic hinge without setting up inherent stresses in the hinge. In contrast, the purpose recited in claim 23 for injecting the material of the second part before the first part has completed its shrinkage after molding is to provide a predetermined frictional force at the interface between the first part and the second part, in order to resist relative pivotal movement.

In view of the foregoing, it is respectfully submitted that a) Terry teaches away from the claimed invention and, b) Terry places a "completed" first part into the mold cavity for molding the second part. Therefore, it would not have been obvious for one of ordinary skill in the art to have arrived at the invention recited in claim 23 from a review of Terry.

Dependent claims 14-22, which previously depended from independent claim 12, have now been amended to depend, at least ultimately, from claim 23. Dependent claims 14-16 and 18-22 merely further patentably define the detailed subject matter of their patent claim or each other. As such, these claims are also believed to be in condition for allowance over Terry as well as the remainder of the cited art.

Dependent claim 17 was rejected as being unpatentable over Terry in view of Magnenat. However, Magnenat was only used for its disclosure of a hinge with an elliptical interface region. It was asserted that at the time of the invention it would have been obvious to one of ordinary skill in the art to modify the hinge of Terry to include an elliptical interface in order to form a biased hinge that has a more preferred position. However, Magnenat does not provide those teachings which are clearly absent from

Terry, as discussed above. Therefore, the asserted combination of Terry and Magnenat fails for the same reason as Terry does by itself. As a result, it is respectfully submitted that dependent claim 17 also patentably defines over Terry in view of Magnenat, as well as the remainder of the cited art.

Accordingly, it is respectfully submitted that all of the pending claims are now in condition for allowance over the art of record. Such allowance is earnestly solicited.

Respectfully submitted,

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31 Dec, 2009
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